**DEPARTMENT OF TRANSPORTATION**
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

# WELDING INSPECTION REPORT

**Resident Engineer:** Casey, William
**Address:** 333 Burma Road
**City:** Oakland, CA 94607

**Report No:** WIR-028679
**Date Inspected:** 24-Oct-2012

**Project Name:** SAS Superstructure
**Prime Contractor:** American Bridge/Fluor Enterprises, a JV
**Contractor:** American Bridge/Fluor Enterprises, a JV

**OSM Arrival Time:** 700
**OSM Departure Time:** 1730
**Location:** Job Site

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| **CWI Name:** | As noted below | | | **CWI Present:** | ☑ Yes | ☐ No | |
| **Inspected CWI report:** | ☐ Yes | ☑ No | ☐ N/A | **Rod Oven in Use:** | ☑ Yes | ☐ No | ☐ N/A |
| **Electrode to specification:** | ☑ Yes | ☐ No | ☐ N/A | **Weld Procedures Followed:** | ☑ Yes | ☐ No | ☐ N/A |
| **Qualified Welders:** | ☑ Yes | ☐ No | ☐ N/A | **Verified Joint Fit-up:** | ☐ Yes | ☐ No | ☑ N/A |
| **Approved Drawings:** | ☑ Yes | ☐ No | ☐ N/A | **Approved WPS:** | ☑ Yes | ☐ No | ☐ N/A |
| | | | | **Delayed / Cancelled:** | ☐ Yes | ☑ No | ☐ N/A |

**Bridge No:** 34-0006
**Component:** SAS OBG

**Summary of Items Observed:**

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

This QA observed the following welders working in OBG 12E and 13W at various locations:

ABF welder Richard Garcia #5892 was observed performing ongoing weld repairs on weld 12E-E2.1-C1.1 at y=10,600mm – 11,600mm. The welder was observed utilizing WPS ABF-WPS-D15-1004-Repair-Revision 0 for SMAW. The welder was observed preheating the welds prior to Carbon Arc Gouging and welding. Other welding parameters as inspected by QC Inspector appeared to be in compliance with the WPS noted above. RWR's 201210-013-016 were referenced for this weld repair.

ABF welder Mike Jimenez #4671 was observed performing ongoing weld repairs on weld 12E-E2.1-C1.1 at y=7650mm – 7900mm. The welder was observed utilizing WPS ABF-WPS-D15-1004-Repair-Revision 0 for SMAW. The welder was observed preheating the welds prior to Carbon Arc Gouging and welding. Other welding parameters as inspected by QC Inspector appeared to be in compliance with the WPS noted above. RWR's 201210-013-016 were referenced for this weld repair.

ABF welder Chris Bruce #8901 was observed performing weld repairs on 12E-E2.1 at at y=29,230mm. The dimensions of the excavation was noted as 100L/35W/12D. The welder was observed utilizing WPS ABF-WPS-D15-1000-Repair-Revision 2 for SMAW. The welder was observed preheating the welds prior to

Carbon Arc Gouging and welding. Other welding parameters as inspected by QC Inspector appeared to be in compliance with the WPS noted above. This repair was noted as an R1 and no Request for Weld Repair (RWR)was required.

ABF welder Xiao Hua Luo #1291 was observed performing weld repairs on 12E-PP115.2-E2.1-PS2. The welder was observed utilizing WPS ABF-WPS-D15-1000-Repair-Revision 2 for SMAW. The welder was observed preheating the welds prior to Carbon Arc Gouging and welding. Other welding parameters as inspected by QC Inspector appeared to be in compliance with the WPS noted above. This repair was noted as an R1 and no Request for Weld Repair (RWR)was required.

This QA Inspector performed an Ultrasonic (UT) inspection on 13W-W2.1 from 5090mm to 5190mm. These welds were previously accepted by QC Ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3. This QA Inspector noted no indications at the time of testing. This QA generated a TL-6027 UT report on this date. The testing was performed in accordance with AWS.D1.5-2002 Section 6, table 6.3.

This QA Inspector performed Magnetic Particle (MT) testing on the weld located at 13W-W2.1 from 0mm to 8020mm. This QA Inspector performed MT testing utilizing the yoke method in conformance with ASTM E 709 and the standard of acceptance with D1.5 section 6.26.2.1. This QA Inspector noted that no rejectable indications were found at the time of testing. This QA Inspector generated a TL-6028 MT report on this date. The completed work at this location appeared to be in general conformance with the contract specifications.

This QA observed QC Inspector William Sherwood and Salvador Merino performing welding parameter checks such as voltage, amps, electrodes and preheats throughout the day. Also noted were QC Inspectors John Pagliero and Jesse Cayabyab performing various Non-Destructive Testing (NDT) on completed weld repairs as they became available for testing. Non-Destructive Testing methods utilized by the QC Inspectors were Visual Testing (VT), Magnetic Particle Testing (MPT) and Ultrasonic Testing Shear Wave (UTSW). QC Inspectors were observed performing inspection per applicable code and or contract criteria.
Unless otherwise noted, all work observed on this date appeared to generally comply with the contract documents.

**Summary of Conversations:**

Conversations revelvant to work performed.

# WELDING INSPECTION REPORT

*( Continued Page 3 of 3 )*

**Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Gary Thomas 916-764-6027 , who represents the Office of Structural Materials for your project.

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| **Inspected By:** | Frey,Doug | Quality Assurance Inspector |
| **Reviewed By:** | Reyes,Danny | QA Reviewer |